

## OIB - Other: NOAA P-3 04/21/16 Science Report

**Aircraft:**

Other: NOAA P-3

**Date:**

Thursday, April 21, 2016

**Mission:**

OIB

**Mission Location:**

GR

**Mission Summary:**

OIB flew the sea ice SIZRS Zig Zag mission. The mission was timed to pass under the European Sentinel-3A radar altimeter satellite during a portion of the line and the satellite passed overhead when we were about 2/3 through the line. We also passed over undersea moorings from the Beaufort Gyre Experiment project and flew a racetrack pattern near Barrow to make measurements similar to the ICESat-2 measurement pattern over fast ice. Weather was near perfect for the laser and camera data with no clouds in the sky. Near the beginning of the data line surface temperatures were somewhat warm with the onboard radiometer reading -6 C, just above the limit where we might expect an impact on the radar data. Temperatures were cooler, down to about -15 C further north up the data line.

As an added bonus during the flight, a conversation with the flight director revealed the existence of a 6 channel microwave radiometer called SFMR. We've requested this to be turned on which could potentially be an interesting new data set for the project.

**Data volumes:**

ATM: 22 Gb some window contamination probable later in flight

FLIR: 3 Gb

DMS: 71 Gb (1 min lost due to instrument issue)

Ku-Band Radar: 122 Gb

MCoRDS: 0 Gb

Snow Radar: 122 Gb

BESST: (write error caused loss of data collection 1 hour after instrument turn on)

Total data collection time: 5.3 hrs

**Submitted by:**

Nathan T. Kurtz on 04/29/16

**File:**

 [sizrszigzag.pdf](#)

**Related Flight Report:**

## Other: NOAA P-3 04/21/16 - 04/22/16

**Flight Number:**

Sea Ice SIZRS Zigzag

**Payload Configuration:**

OIB-Spring 2016

**Nav Data Collected:**

No

**Total Flight Time:**

8.3 hours

**Submitted by:**

John Woods on 04/21/16

**Flight Segments:**

<b>From:</b>	PAFA	<b>To:</b>	PAFA
<b>Start:</b>	04/21/16 18:03 Z	<b>Finish:</b>	04/22/16 02:22 Z
<b>Flight Time:</b>	8.3 hours		
<b>Log Number:</b>	<a href="#">16M030</a>	<b>PI:</b>	Nathan Kurtz
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		

<b>Purpose of Flight:</b>	Science
<b>Comments:</b>	Sentinel 3 and Mooring Overflights

**Flight Hour Summary:**

	<b>16M030</b>
<b>Flight Hours Approved in SOFRS</b>	200
<b>Total Used</b>	148.7
<b>Total Remaining</b>	51.3

**16M030 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">03/22/16</a>	ICF1	Check	2	2	198
<a href="#">03/23/16</a>	ICF2	Check	3.4	5.4	194.6
<a href="#">04/12/16</a>	ICF3	Check	1.3	6.7	193.3
<a href="#">04/15/16</a>	Repo 1	Ferry	0.5	7.2	192.8
<a href="#">04/16/16</a>	Repo 2	Ferry	2.9	10.1	189.9
<a href="#">04/18/16</a>	Repo 3	Ferry	7.1	17.2	182.8
<a href="#">04/19/16</a>	Sea Ice Eureka	Science	7.3	24.5	175.5
<a href="#">04/20/16</a>	Sea Ice Laxon Line	Science	8.7	33.2	166.8
<a href="#">04/21/16 - 04/22/16</a>	Sea Ice SIZRS Zigzag	Science	8.3	41.5	158.5
<a href="#">04/30/16</a>	Sea Ice South Basin Transect	Science	8.8	50.3	149.7
<a href="#">05/03/16</a>	Sea Ice North Pole Transect	Science	7.6	57.9	142.1
<a href="#">05/04/16</a>	Sea Ice South Canada Basin	Science	7.9	65.8	134.2
<a href="#">05/09/16</a>	Land Ice Zachariae-79N	Science	7.6	73.4	126.6
<a href="#">05/10/16</a>	Land Ice Northwest Coastal A	Science	6	79.4	120.6
<a href="#">05/11/16</a>	Land Ice Umanaq B	Science	7.1	86.5	113.5
<a href="#">05/12/16</a>	Land Ice Southeast Coastal	Science	7.3	93.8	106.2
<a href="#">05/13/16</a>	Land Ice Helheim-Kangerdlugssuaq	Science	7.8	101.6	98.4
<a href="#">05/14/16</a>	Land Ice SW Coastal A	Science	7.8	109.4	90.6
<a href="#">05/16/16</a>	Land Ice Thomas-Jakobshavn 01	Science	7.9	117.3	82.7
<a href="#">05/17/16</a>	Land Ice Helheim-Kangerdlugssuaq Gap B	Science	8.1	125.4	74.6
<a href="#">05/18/16</a>	Land Ice IceSat-2 Central	Science	7.7	133.1	66.9
<a href="#">05/19/16</a>	Land Ice East Glaciers 01	Science	7.1	140.2	59.8
<a href="#">05/21/16</a>	Ferry BGSF_KMCF	Ferry	8.5	148.7	51.3

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

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